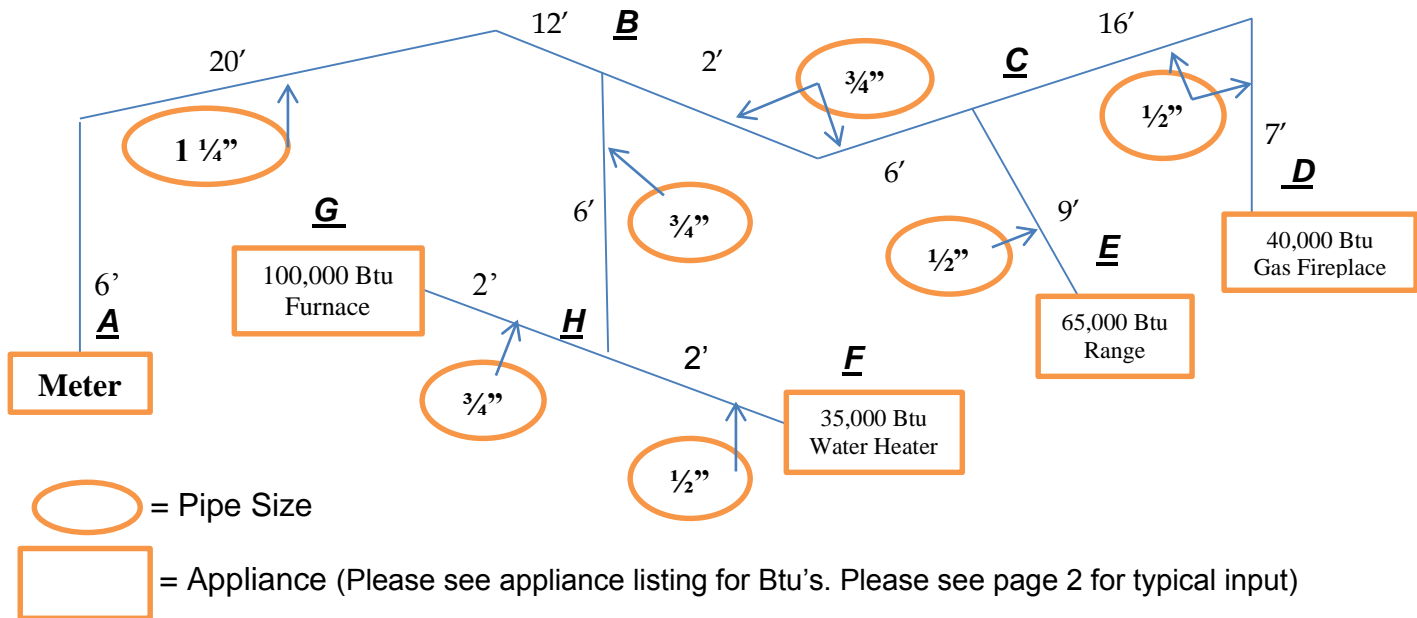




GAS PIPING DIAGRAM (SAMPLE)

BUILDING SERVICES



= Pipe Size

= Appliance (Please see appliance listing for Btu's. Please see page 2 for typical input)

Procedure for determining the size of each section of pipe per CPC- Figure 1216.1.1

1. Measure the length to the most remote outlet. In this case it's the gas fireplace. The length of branch A,B,C and D is $6+20+12+2+6+16=69$
2. Select length in table 12-8 that is equal to or greater than 69', use 70'.
3. The size of all sections of pipe in the main branch will be determined using the same row table
4. Convert Btu to cfh as follows: 1,100 Btu= 1 cfh

A portion of Table 12-8 for sch 40 metallic pipe is shown below

	Pipe size (in)				
	1/2"	3/4"	1"	1-1/4"	1-1/2"
Length(ft)	Capacity in cubic Ft/Hr.				
50	72	151	284	583	873
60	65	137	257	528	791
70	60	126	237	486	728
80	56	117	220	428	677

Use this row
for all sections

Branch C-D has 40 cfh, 1/2" pipe required
Branch B-C has 105 cfh, 3/4" pipe required
Branch A-B has 240 cfh, 1-1/4" pipe required

5. Subsequent branches not previously sized are determined similarly based on the distance from the meter

Branch C-E has 65 cfh, distance= 55', use 60' row, 1/2" pipe required
 Branch B-F has 35 cfh, distance= 46', use 50' row, 1/2" pipe required
 Branch B-G has 100 cfh, distance= 46', use 50' row, 3/4" pipe required
 Branch B-H has 135 cfh, distance= 44', use 50' row, 3/4" pipe required

Table 12-1, Approximate Gas Input for Typical Appliances

Appliance	Input Btu/h.		Appliance	Input Btu/h.
Space Heating Units			Cooking Appliances	
Warm air furnace			Range freestanding	
Single family	100,000		domestic	65,000
Multi family	60,000		Built in oven or broiler unit	
Hydronic boiler			domestic	25,000
Single family	100,000		Built in top unit,	
Multi family	60,000		domestic	40,000
Space and Water Heating			Other Appliances	
Hydronic boiler			Refrigerator	3,000
Single family	120,000		Clothes dryer, type 1	
Multi family	75,000		domestic	35,000
Water Heating Appliances			Gas fireplace direct vent	40,000
Storage 30 to 40 gallons	35,000		Gas log	80,000
storage 50 gallons	50,000		Barbeque	40,000
Water heater, instantaneous			Gaslight	2,500
Capacity at 2 gal/min	142,800			
Capacity at 4 gal/min	285,000			
Capacity at 6 gal/min	428,400			